

The NORTH QUEENSLAND NATURALIST

CAIRNS

Journal of



NORTH QUEENSLAND NATURALISTS CLUB

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Founder President: The late Dr. HUGO FLECKER

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OBJECTS: The furtherance of the study of the various branches of Natural History and the preservation of our heritage of Indigenous fauna and flora.

MEETINGS: Second Tuesday of each month at Cairns Education Centre, Cnr. Morehead and Lazarus Sts., Bungalow, 8.00 p.m.

FIELDS DAYS: Sunday before meeting. Notice of place and time given in "Cairns Post".

SUBSCRIPTIONS: (Due September 30th)

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- \$5.00
- \$4.50
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Each author is responsible for the facts and opinions expressed
in his or her article.



MOWBRAY RIVER SNAILS

By Barbara Collins

February 18th heralded a collecting trip to the Mowbray River to collect some of the brackish/fresh water snails that inhabit the area. Specimens were forwarded to the Queensland Museum in an attempt to obtain identification of some of the species. Doubtless there are numerous other species to be collected in this rich area given the expertise in this field.

From the area near the top bridge on the river, three species were collected:

FIGURE 4 Neritina (cf) zig-zag which lived above the water line in crevices on the bank, on rocks or twigs in silt covered areas. An olive shell, prettily marked with white zig-zag markings. The apex was eroded on all specimens and most suffered growth breaks which could have been caused by a land predator.

FIGURE 7 Dostia crepidularia, the slipper nerite, well camouflaged by its thick coating of periostracum on rocks or river bed substrate. When cleaned this purple shell is patterned with white tent and zig-zag markings and has a deep reddish aperture. These can also be found as far seaward as fringing mangrove swamps on the coast.

This area is the farthest reach of tidal influence and FIGURE 5 is also located here. It is also abundant upstream in the freshwater area. A greyish shell with dark olive periostracum, it is ornamented with fine white tent markings and darker banding. An interesting feature of the species is the suture that runs from the apertural lip to the apex and textured surface of the shell. The apex of this species also showed erosion.

Farther upstream, another species of Neritina, FIGURE 6, is most abundant. Larger than the preceding species it appears uniformly black with a white columnella and aperture and back operculum. In some there is a reddish stain on the columnella. When some of the periostracum is removed some shells exhibit an attractive patterning of blotches and spots and marbling. Eggs of this and probably the other species adorned rocks, twigs and shells of other snails present in the area.

Two large species of snail predominated here in pools. A liberal deposit of leaf litter and rotting vegetation made detection of the large black snails difficult - FIGURE 1. The snails were all decollated, smaller younger specimens being more intact. When the thick black periostracum was removed the snails were cream and young specimens exhibited white banding spotted with brown on the sutures of the whorls; this was obsolete in older specimens.

Where there were areas of sandy clay, the turreted snails were found - FIGURE 2 Thiara amaruloides. When the thick black periostracum was cleaned from these, the shell was uniformly cream. The decollation of these and the other species is probably due to the acidic conditions caused by the rotting vegetation on the creek bed.

The smaller snail, FIGURE 3, was less conspicuous. Found crawling in the rusty, silty sludge lining the creek bed, it cleaned to an olive shell with finely striated sculpture with irregular brown longitudinal markings on the whorls.

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NOTE : Our Club welcomes small scientific papers for inclusion in this Journal.



FIG 1 : 73mm

FIG 4 : 16mm
Neritina zig-zag



FIG 2 : 50mm
Thiara amaruloidea



operculum



operculum

FIG 3 : 25mm



FIG 5 : 20mm



FIG 6 : 24mm



FIG 7 : 20mm
Dostia crepidularia

MOWBRAY RIVER SNAILS

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MAYTOWN'S TIME CAPSULE

by Dora Stokes, Hon. Librarian

For the long week-end 22/24 July 1983 the Palmer River Historic Preservation Society are organizing a most ambitious project. Maytown was established on the north bank of the Palmer River in 1875 and they intend to erect a monument in the main street of the old town site. Cast within the monument will be a time capsule which will contain all the items thought to be of historic value at the time the capsule is opened in the year 2083.

As a special offer, the Palmer River society has made available for sale especially printed large envelopes. These are available to any living relatives, family or friends who have ties with the Maytown and Palmer River goldfields era between 1873 and 1945. It is hoped that the reminiscences, information or records passed down through the families can be recalled and put to paper. The envelopes will hold the individual history, records and possibly photos of the time, to be passed on when the capsule is re-opened.

Everyone interested is invited to attend the on-site ceremony at Maytown for the unveiling on Saturday 23rd July, 1983.

Envelopes and information can be obtained from the society's headquarters at Coral Motors, 138 McLeod Street, Cairns.

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SUCCESSFUL HATCHING OF PAPUAN FROGMOUTH

by Dawn Magarry

Following our Papuan Frogmouths' unsuccessful nesting attempt in 1981 we were anxiously watching for their return this year (1982).

Both birds were discovered roosting on September 8th. We kept a check on them but they disappeared after a few days and it was not until October 14th that the female was found sitting on her usual sparse nest of twigs. The nest was in the same position as last year in our big mango tree.

On October 23rd the bird was photographed by Jack Cupper and John Young, and John reported a day old chick in the nest. The mother left the nest each evening at dusk at approximately 6.30 p.m. to feed herself and her fluffy white chick.

By November 18th the chick was occasionally visible during the day. Its head was still white but body colour was becoming mottled brown and white. We could not find where the male perched during the day but he was finally sighted on November 21st. By December 1st the young frogmouth was spending most of his day sitting just beside Mum instead of being covered.

During the past ten days the chick seemed to have grown very fast. Maybe both parents were feeding it. As soon as mother left the nest he stretched and flapped his wings, the feathers of which were developing fast and getting darker. Mother was now feeding farther away from the nest. Previously she stayed quite close around our garden. We could not see what she caught among the branches but presumed it was moths, stick insects, grasshoppers, lizards perhaps.

On the morning of December 7th the chick was missing from the nest and we found him perching beside the adult quite some distance away but in the same tree. His tail was still very short.

At 6 a.m. on December 11th I found junior sitting on the roadside outside our house. Earlier I had heard the Black Butcher Birds and obviously they had frightened him from his perch. We placed him as high as we could reach in the mango tree and Mum soon flew down to him.

The family has since moved farther up into the nearby rainforest though we did see mother and baby around the garden on January 14th (1983) just on dusk. Baby was still recognizable by his short tail.

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AN UNUSUAL REEF INHABITANT

by Barbara Collins

First published in Cairns Shell News, Sept '81.

Has anyone ever noticed spiders (of the Terrestrial kind) on the intertidal reef at Yule Point? Actually they are quite numerous, particularly as the tide turns. The specimen captured was forwarded to the University of Melbourne to Mr. Paul Murphy who identified it as Desis marina (Hector 1877) and has this to say:

"It belongs to the family AGELERIDAE and lives insilk-lined, water-tight tubes in holes in coral and rocks. They forage at low tide on small crustaceans," (ours had control of a small shrimp) "and captive specimens have been observed to kill small fish."

I imagine the spiders capture enough to fill their larder to get through the periods where there are no tides low enough to expose the reef.

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MORE CLUB ACTIVITIES

October has been a very busy month for members of the North Queensland Naturalists Club. On October 8th we entertained 30 members of the Queensland Naturalists Club to a barbecue at the Centenary Lakes. The Queensland 'Nats' had just returned from two weeks study of the animal and plant life at Cape Tribulation National Park. President Les Francis welcomed the visitors and said it was a great opportunity for local club members to meet and chat with the southern visitors.

On October 10th a small party of club members enjoyed the field day at Goldsborough with only one thing spoiling the day - persistent march flies. There were quite a variety of vines along the rainforest tracks, some flowering and some in bud. These included the fragrant Faradaya splendens, Calamus caryotoides (Fishtail lawyer vine), Clematis glycinoides, and Lonchocarpus. Other vines and creepers observed were Freycinetia, Flagellaria indica (supple jack), several species of Raphidophora and Stephania japonica. A point of interest noticed with the latter were the large storage organs found at ground level.

The track through the scrub was littered with the orange yellow flowers of Canstanospermum australe (black bean), white Eugenia blossoms and the bright blue berries of Eleocarpus grandis (blue quondong). Some tracks were heavily overgrown with Rubus moluccanus, commonly called wild raspberries.

A large flowering tree noted was Brachychiton discolor, its bare branches sprouting deep red flowers. In the understory Randia hirta displayed its star shaped white blossoms, while a wary eye had to be kept for stinging trees. Though the rainforest was fairly dry, ferns including Adiantum, Cyathea (tree ferns), Angiopteris evecta (king fern) still looked fresh and green, as did Bowenia spectabilis often mistaken for a fern but belonging to the cycad family.

From a high point overlooking the river about a dozen cat fish 'nests' were observed, some of which were occupied by their large owners.

A good list of birds was tallied for the day, 50 in all. Highlights were the Barred Cuckoo Shrike, Dollar Bird, Victoria Rifle Bird, Scaly Breasted Lorie, Grey Headed Robin, Azure Kingfisher, Greenwing Pigeon and a Grey Whistler adding some vine tendrils to her nest, well camouflaged in the foliage of a tree. On the return trip a stop at the mangroves found Mangrove Robins, Lovely Wrens and a Large Billed Warbler building its straggling nest which looks so much like flood debris.

At the Club's monthly meeting Dawn and Arnold Magarry showed slides of their recent trip to the Northern Territory. These included wildflowers, birds and landscapes.

Two Swedish visitors were welcomed and also three new members, Eric Reye and Elizabeth and Andrew Krumins. A short talk on the Jacana, or lotus bird, was given by Joan Chapman.

Eric Reye spoke of his observations of an inter-tidal ant found in the mangroves. The nests of these ants form mounds in the mud and must be covered by the tide. He would welcome any observations on this subject.

Members were reminded of next month's week-end camp in the Mount Lewis area.

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NATIVE FRUITS OF NORTH QUEENSLAND

by Vincent Winkel F.R.A.I.P.R.

When we compare Australia's indigenous food plants with those of the rest of the world we are inclined to think that they are sadly lacking. This is not very fair because the cradle of modern agriculture was surely in the civilizations of Central and South America. Potatoes and corn which form a very large part of our staple food today were developed over many centuries of selection by the American Indians who, at that time, were the world's best farmers and were far more advanced than their European counterparts. Their plants, such as pine-apples, had reached such a stage of development that the wild plants can no longer be found. A fairer comparison could be made between the plant foods eaten by the aborigines of Australia with those of the cave men of Europe. The crab-apple of Europe is not even as good as some of the native indigenous fruits that can be eaten.

There is really only one Australian food plant that has won world acclaim and that is the Queensland, or Macadamia, nut which is native around Gympie and a mountain called Mount Bauple. This has been successfully selected until now, in Hawaii, there are strains that can be cracked with a nutcracker. That is the Macadamia ternifolia, but our M. wielandii is poisonous.

Before the advent of the white man the aboriginal's diet was most nutritious, much more so than that of the first sailors who came here. They had a well balanced diet and ate far more vegetables than we thought. We think of them as a hunting people but often the hunters returned empty handed and the meal was provided by the ladies. The only time they suffered distress in their diet was in times of drought and even then it was not so bad because there were more animals about that could easily be caught.

The most famous food plant was the Bunya nut, a pine tree after which the Bunya Mountains are named. Every three years these trees bear heavily and the tribes would forget their local skirmishes and concentrate on grand festivities during the month they are ripe. They are a sub-tropical plant and can be seen in Yungaburra.

The food plants that were here were soon known by European names familiar to the new-comers so that we have lots of different 'plums', 'cherries' etc. because of a chance resemblance though they were in no way related to these cold country fruits. Not many native fruits in the Cairns area are agreeable to our European palates. The sweetest plant the aborigines had was a native ginger, Etalaria scottiana or native cardamom. It has a small fruiting body at ground level, heart-shaped with the seeds inside, wrapped up in little packets. You take these out and suck them and find they are covered with a very sweet substance. Except for native honey this would be the sweetest thing they had. It is a very common plant in the swamps around Cairns.

The best fruit that grew in the Cairns area was Antidesma dallachyanum, named after Dallachy; this was also known as the Herbert River Cherry because it is common on the Herbert River. It used to be quite common in the Cairns area but, with the clearing and filling in of the swamps, there are now very few left. They have a disadvantage for the garden in that you must have a male and a female plant. It is not related to cherries at all of course, in fact it is in the family of the Euphorbias which are nearly always very poisonous. They have a small cherry-like fruit in bunches and taste a little sour. Some plants are very good fresh but all preserve very well and make very good jam and jelly, also wine. When preserved they are absolutely blood red - very good served with ice cream.

A second species grows on the beaches, A. bruinias. This is a common village fruit tree found throughout south-east Asia. But the third, A. ghaesembilla is only Australian. It is another good one in the dry country up over the Tablelands and the late Dr. Brass told me that this tasted the sweetest of any Antidesma, in fact the sweetest of any native fruit that he had eaten.

Up on the Tableland there is a large rainforest tree called Davidson's Plum, Davidsonia pruriens. The leaves have hairs on them which are slightly irritant and so have the large plum-shaped fruit which are a dark plum colour outside but the flesh inside is a beautiful scarlet. The early settlers used this plant extensively as it also grows in the rainforest in northern New South Wales and south-eastern Queensland. Many, many pounds of jam have been made in Australia from this plant but I have never found one with fruit that can be eaten fresh.

The Burdekin Plum, Pleygonium cerasiferum, is a large tree of the mango family but the fruit is nothing like a mango; it looks like a plum coloured, miniature pumpkin. It grows all along the dry coastal creeks and over the range and also along the beaches around Cairns, occurring naturally at Yorkeys Knob and other areas. Some of them are white inside and some are red, but the pulp is very scanty. When you pick these you should put them in a brown paper bag and leave them for a week or two until they become soft and then they are quite good to eat fresh, but they also make excellent jam and jelly and a very good wine. The aboriginals used to bury them in the sand for a week or two before eating them.

Although we have no true cherries or plums, we do have a member of the rose family which was a very productive fruit tree for the aboriginals and it bears their name for it, which is good. It is 'Nonda', Paranarium nondi. This is the Nonda of Cape York but it grows as close as the Clohesy River. You would not recognize it as a member of the rose family. It is quite a nice tree, very weeping in habit like a weeping willow. Some of the fruit are inferior but some are really good; it is a dry fruit, from the size of a date up to that of a plum. They must be very ripe and then they have a dry, mealy, rich nutty flavour. I find them very enjoyable indeed.

We have only briefly mentioned here a few of the edible fruits that can be found within a fifty mile radius of Cairns, but we should consider all the different root crops as well and all the vegetables whose leaves were eaten and also all the medical plants. Perhaps if space permits we may mention some of these at a future time.

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THE CHANGING FACE OF GATTON STREET (CAIRNS)

I find it hard to visualize
The street as when first seen,
When ancient, kingly Leichhardt trees
Extended bottle green
And shady branches; scattered leaves
To beautify and cool
The stony track scant distance from
A waterlily pool.

The years have passed. Concrete and brick
Now house the aged and ill
Where wallabies sought tender roots;
Where, when the air was still
On summer nights, the mopokes voiced
Their steady, rhythmic cry,
And hammerbirds (those tiny owls)
Tapped wee nails in the sky.

The scene then changed; I brought my son
To frolic in the sand
And lukewarm, rainfilled hollows gouged
Out by the giant hand
Of modern day Goliath named
Bulldozer; true to name,
He roars and snorts and kicks the earth,
Destroying since he came.

Yes, times must change. I miss the forest
But man must stretch his wings;
Yet still, in coarse cacophony
The lorikeet flock sings
Where paperbarks, eugenias
And eucalypts were left
In scattered stands so nature would
Not be wholly bereft.

- Sybil Kimmins.

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A WEEK AT LIZARD ISLAND

by Ceri Pearce and Ida McLiesh

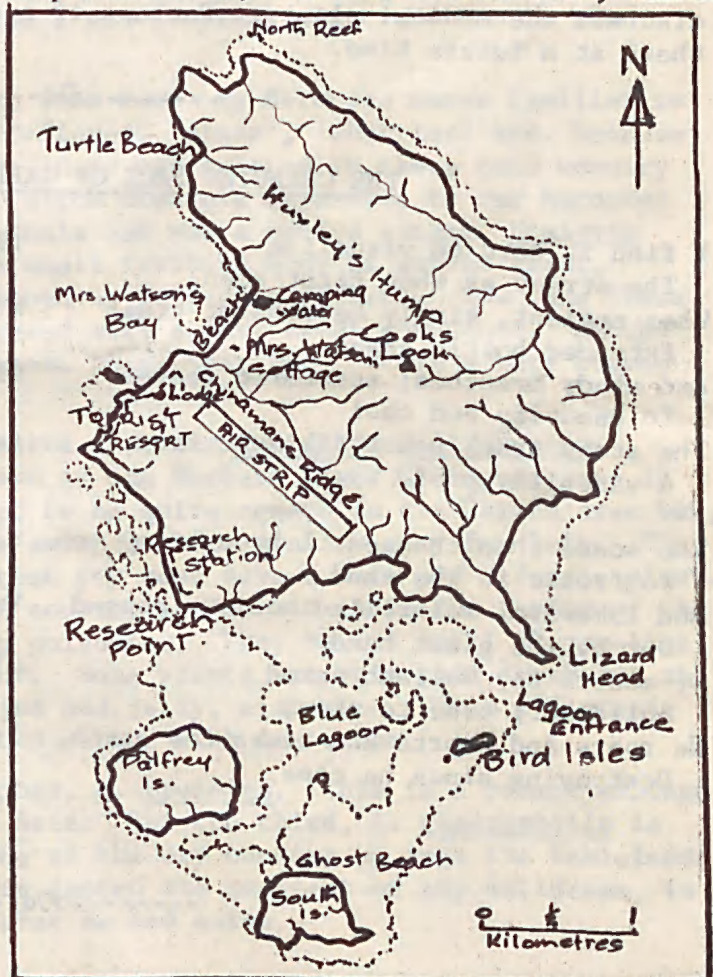
Flying low in a tiny plane from Cairns last November we had splendid views of scattered coral reefs and sandy cays on the way to Lizard Island. Here we camped for seven days, the limit of our National Parks and Wildlife Service camping permit.

From the island's airstrip a tractor-drawn wagon carried passengers and luggage to the Lodge. From here we were dismayed by the sight of the 'goat track' slanting sharply up the hill which, we were assured, was the only way to the camp site. We were saved by two noble fishermen who offered us a boat ride, camping gear and all, to the camping area at the far end of the next beach to the north, on Mrs. Watson's Bay. Here National Parks have installed a big solid table with seats, sheltered from the constant wind by a grove of heavy-scented Barringtonia racemosa. A concrete fireplace and a pit toilet were nearby and hand-pumped fresh water was available 100 yards away via a bush shower and tap.

Lizard is a continental island, 20 nautical miles off the east coast and some 45 north-east of Cooktown, actually only nine miles from the outer barrier reefs. At this time the hills were brown-dry, the fresh green streaks of the creek courses providing vivid contrast. While it is mostly covered with open grassland and eucalyptus scrub, other habitats represented include pandanus, paper bark tea trees and mangrove swamps, plus rainforest ravines closely guarded by ferocious green tree ants. The island is extremely rocky with granite outcrops dotting every hillside. To reach the highest peak, Cook's Look at 370 metres, one has to climb an exhausting mountain track to be rewarded finally by breathtaking views of the island and reefs in every direction - or was it the track that was breathtaking?

From our camp on the northern end of Mrs. Watson's beach a small reef extended out to Granite Head. Here we spent many enjoyable hours exploring. Some of the marine life we recognized were red squirrel fish, threadfin coral fish, beaked coral fish, damsels, trigger fish, Maori wrasse, parrot fish, Moorish idol, puffer fish, cleaner fish, anemones and their clown fish, brittle stars and blue starfish, brilliantly coloured giant clams and several varieties of holothurians (better known as beche-de-mer or sea slugs). Clusters of marine algae or turtle weed clung precariously to the coral. Formations of coral included brain, mushroom and staghorn varieties as well as the soft coral families. Tube worms were common with their delicate but colourful double spiral fans extended. Rarer sightings of the crown of thorns starfish and a manta ray fully six feet across added excitement to our snorkelling. We were constantly surprised at the variety of fish which sometimes gathered in large schools feeding, while little cleaner fish dashed here and there attending to their large customers poised so patiently.

Of all the birds we saw we identified sunbirds, who greeted



us from our Barringtonia haven, Brown's honeyeaters, white-faced herons, large egrets, spice finches, sparrows (which arrived there seven years ago, just a few years after they reached Cairns), little terns, helmeted friar birds, silver gulls and reef herons. Ceri was befriended by a blue reef heron she named 'Fred' while he posed for her camera; he had her trained to scare tasty morsels towards his ankle-deep position from deeper water as she clicked away. Torres Strait pigeons were nesting in the only dense foliage near us, along the creeks on the hillside. We saw one soaring osprey, lots of peaceful doves, black-faced wood swallows, leaden flycatchers, white-breasted wood swallows, one lone pelican, terek sandpiper and a single black-tailed godwit. The sunbirds could be found in many flowering trees but the dominant birds were the bar-shouldered doves which abounded in the acres of tussocky grass.

The sand monitors of Lizard Island have a shy and retiring nature. For days we saw burrows and lizard prints in a dry creekbed nearby before we saw them sunning on rocks. Eventually we managed to lure the largest of our local sand monitors, fully a metre in length, into our campsite with several cracked eggs and some meatloaf. Two smaller ones bravely competed for the food but were promptly pushed backwards from a standing posture down into the creek bed. We regularly saw a procession of flying foxes at dusk.

A sandy track leads south from the Lodge, past the "Lizard Island International Airstrip", rounding a hill above the beautiful Blue Lagoon, to the Research Station which is a facility of the Australian Museum. Tours of the establishment are conducted most afternoons between 3 and 4 p.m. Facilities are available here for experimental research carried out by the few lucky scientists who can be accommodated at any one time. They have bungalow type accommodation, boats, diving equipment, aquaria and laboratory equipment for every purpose. Since our visit they have brought their new research vessel "Sunbird" around from Perth. Built and equipped to their own requirements, it will give far greater scope for their reef researches. Who would not want to be a marine biologist? It is a long haul and you have to be tough, but so rewarding.

We met some wonderful people over there and our week's holiday left us wishing we knew a whole lot more about everything and hoping to go back some day.

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A NEW SWALLOW FOR AUSTRALIA

by John Crowhurst

On Saturday, 12th February, 1983 Dawn and Arnold Magarry, Rita and John Squire and I were on a Wader Count in the Daintree area. We stopped by a swamp on the way to the ferry; on one side was bare mud and on the other an expanse of green rushes with melaleucas.

There were hundreds of Magpie Geese feeding with more flying in as we watched. Walking the track between, Arnold saw a Black Bittern perched in a tree and farther over were Nankeen Night herons. Another Bittern was disturbed. A Japanese Snipe zipped up and zig-zagged frantically before disappearing. We saw about six Sharp-tailed Sandpipers. Amongst the trees were Large Egrets and Royal Spoonbills. Rita tried to photograph Chestnut Breasted Finches with little success.

There were dozens of Martins and Swallows hawking over the reeds. Not taking much notice, Rita, Arnold and I went ahead across the road. Dawn and John stayed behind. Something like a red flash on the rump of some of the swallows had intrigued them. Following, they asked me whether I had looked at the birds perched on the telephone wires over the cane. In my usual dogmatic style I said 'Yes, but there was nothing of interest'. To tell the truth I hadn't looked. Fortunately they insisted. The flock of birds occasionally dashed off the line and swept over the cane, always coming back to the same spot.

Everyone else, bar me, could see the difference in some of the swallows, then

two perched on the lines near us and afforded me excellent views. They had a rufous-buff rump, black crown, red on the side of the head, the wing coverts and tail were black and the underparts were heavily streaked. There were no swallows in Australia with markings like that. We saw about five. Later John McKean and Hans Beste saw eight. With these swallows were a lot of juveniles, probably Welcome, also one or two Fairy Martins and later a few Chestnut Breasted Finches. We were excited for we were looking at a bird new to Australia. The reddish rump and striped underparts were very distinctive.

Back home John and I checked through some of my field guides and eventually came to the conclusion that we had seen Red Rumped Swallows (Hirunda daurica). On looking up the guide to South-east Asia we found there was an Asian race with streaked underparts. Meeting John McKean and Hans Beste later, they told me that it was not a race but a separate species (a moot point), the Eastern Red Rumped Swallow (Hirunda strialata).

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FOLLOWING A RECENT INQUIRY FROM A CLUB MEMBER, THESE
NOTES WERE GATHERED FROM AN OLD CLUB SCRAPBOOK

Current Nature Topics 4.10.'40

Processionary Moths

Suspended from the common wattle found in these parts, Acacia aulacocarpa, is a curious white silken bag-like structure weighted down by its occupants. The latter are seen to consist of a large number of hairy caterpillars which were responsible for the formation of this bag. At intervals they leave this silken retreat, passing up the supports of the bag, along the stem to which it is attached and then to the trunk of the tree by which they reach the ground in search of food, but the remarkable feature is that they move along in single file in an unbroken chain, the head of one practically touching the tail of the one in front. Sometimes they may be met with crossing a road. So enslaved are they to this processionary movement that, if the head of the leader be placed close behind the tail of the last, an endless circle is formed keeping up an endless march. It has been stated that aborigines will not camp under a tree containing such caterpillars owing to the fear of the hairs falling upon their bare skin and causing an intolerable itch.

The caterpillar after pupating is metamorphosed into the adult form, the Processionary Moth, Ochrogaster contraria, of a brownish colour with a white spot on each forewing.

FOLLOWING THIS IN THE SCRAP BOOK -

Current Nature Topics 15.9.'44

The poison of this caterpillar was studied years ago by that great French naturalist Henri Fabre, and is recorded in his book "The Life of the Caterpillar" translated from the "Souvenirs Entomologiques" by Teixeira de Mattos, published by Hodder and Stoughton. Fabre showed that the irritant in the nests was soluble in ether and was contained in the caterpillar droppings (the caterpillars' sanitation is as low as a Japanese soldier's). He found it common to many other insects but not to mammals or birds. Fabre, unfortunately, cannot be quoted in full and his work cannot bear cutting down, but the following is a short sample:

"These first enquiries lead us to conclusions which themselves are very remarkable. All caterpillars excrete an urticating matter which is identical throughout the series. But, if the poison is to manifest itself and cause us that characteristic itching, it is indispensable that the caterpillar shall dwell in a community, spending long periods in the nest, a silken bag laden with droppings. These furnish the virus, the caterpillars' hairs collect it and transfer it to us."

Current Nature Topics 14.9.'52

One afternoon when walking near the Central School, I noticed a ball of yellowish fluff adhering to a twig on a wattle tree. Being curious and interested, I carefully broke off the twig and took it to Dr. Flecker for further investigations. He informed me that it was a nest of Ochrogaster contraria, commonly called the Procession Caterpillar and so I decided to keep it and watch the movements of the young caterpillars.

Later, little grubs came out of the nest and began to feed on the leaves provided for feeding purposes. They would eat no other than the wattle leaves. Their size increased and also that of the nest which the caterpillars crossed, weaving silken threads, and so they grew in unison. They prefer mild weather and will not venture out of the nest if it is cold.

At a later date I collected another nest, larger than the first, the inhabitants of which were capable of producing an irritation whereas the first, and smaller, ones were not. Soon afterwards I disturbed the smaller caterpillars' nest and they joined up with the larger, refusing to have anything more to do with their former nest. After that, when the caterpillars filed out to feed, the little mingled with the big although the small never led the processions. The abandoned bag I cut open, finding nothing more than excreta and hairs.

Time passed and the caterpillars grew big and, so as to prepare for the time when they would burrow into the ground and become chrysalises, I covered the bottom of the box with sand. Into this they later went, some to emerge as moths, the females to lay their eggs and all to fly away.

During my observations I examined the caterpillars under a magnifying glass and found the body to be of a greenish colour. The hairs were distinctly visible on all parts of the body. The body itself consisted of a number of segments and at one end the paired mouth appeared. The hairs on the body cause an irritation and because of this they are avoided by all.

During the war time, when the soldiers were having manoeuvres and were camping in the scrub, they developed an irritation which was found to be caused from the tents being in proximity with the nests of the caterpillars.

Current Nature Notes 17.7.'53

Destruction of mistletoe by procession caterpillar

M.C. writes from Townsville:

"Sometime last year, a fruit of mine was affected with similar traits as the mistletoe (it has a red flower something after the style of a honeysuckle). I noticed a group of caterpillars (they must have been Procession Caterpillars as they were one after another as in a procession) eating the leaves of this plant, and it has completely disappeared. The tree has borne an excellent crop this year."

This correspondent does not say which tree the parasite was growing on, whether a Citrus or other fruit, but evidently the parasite was a red flowering mistletoe, a species of Loranthus. However, the observation that it was attacked and, indeed, eradicated by the Procession Caterpillar, Ochrogaster contraria, is most interesting. As their larvae usually feed at night time, the operation of feeding is not often seen. In coastal North Queensland they usually spin their bags suspended from the wattle, Acacia aulacorarpa.

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SPOT LIGHTING TRIP TO THE CRATER

By John Crowhurst.

A week-end in December when Bruce and Jill Corfe were here from England, we went with Anne and Terry Lindsay on a spot-lighting trip to The Crater, south of Atherton along the Kennedy Highway.

Arriving at 3 p.m. the day was muggy and hot, rain squalls curtaining the hills, thunder growling. During the few hours of daylight left we watched Top-knot Pigeons feed in a fig tree, found a Pale Yellow Robin on a nest, disturbed a Satin Bowerbird at his bower, saw a flock of King Parrots preening, were serenaded by Bower's Shrike Thrush, heard the unusual call of the Fern Wren, noticed Yellow Throated and Atherton Scrub Wrens gleaning the forest edge and glimpsed Purple Crowned Fruit Pigeons in a high tree.

We had tea as the evening crept in. Grey Headed Robins flitted round, a Tooth Billed Bowerbird made hideous noises, was joined by squalling Spotted Cat-birds. Not the best chorus I've heard. Clouds swept the clearing, lightning tore the skies and the dull booming of thunder was continuous. The scree-ing of cicadas, the chip-chipping of crickets and shrilling of katydids rattled our nerves. A tree frog tinked and from the creek came deep gurks, another frog belched politely and yet another trilled. The best sounded like a mob of sheep, their baa-baa's going up and down the scale.

A bluish-white light came drifting and settled on the table, another landed on my shoulder. Looking round we found the clearing full of lights flashing signals. They were doing cartwheels, barrel rolls, high dives. They zig-zagged, swooped and circled; they flared among the trees, winked from the grass, sparkled in the undergrowth. Along the creek they twinkled on mossy rocks, shot like fiery sparks over the water, were moving convoys on the sand. The best display of fireflies I've seen for some time.

That was not all. Walking to the jungle's edge and adjusting our eyes to the dark, we became aware that the dank floor, mainly rotting logs, twigs, leaves, fronds and some fungi, shone with a bluish white luminosity. We came on some tiny toadstools resembling bedside lamps and picked up one perched on the end of a stick. It was exquisite, glowing and pulsating in the gloom. I even had a squirming earth worm gleaming on my hand.

Anne and Terry grabbed spot-lights and we all wandered down the road. The night was still, damp and cool. The lights flickered on the branches above. A rustling, a cussing, and there emerged a mother Herbert River Ringtail Possum with a young one on her back. She squatted, cleaning herself, then scuttled into the foliage. Farther on we saw a bandicoot scampering across the road, an echidna snuffling round an ant-ridden log and a cane toad that sat galumphing meditatively.

It was like walking down a tunnel, trees towering on either side and converging overhead. The spot-lights sweeping the tangle reflected a silvery-white mosaic of dark and light. Back and forth our beams criss-crossed up and down trunks, over limbs and leaves, seeking eyeshine. A shape moved, two eyes blazed and in the beam was a Green Ring Tailed Possum, two white stripes down its back. The colour comes from a combination of black, yellow, grey and white fur. Another rustle located the lemur-like ringtail that raced along a bough, vanished round a trunk and reappeared yards down the track. A coppery Brushtail possum was next, not a bit frightened, it continued feeding in the probing lights. We missed the Striped Ringtail, pygmy possum and tree kangaroo. There were plenty of common ringtail possums.

Returning, our lights focussed on eye glitter at the roadside, from tree trunks, from grass stalks. These turned out to be green tree frogs, small brown tree frogs and large huntsman spiders. Myriads of insects danced like confetti. Once something large and rufous brushed by. It could have been a rufous owl. A huge black beetle crashed into me, other mysterious objects hummed by, large horse-shoe bats ghosted past and, just as we got back, our lights illuminated droplets of rain. A magical night.

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